

Code of Ordinances  
FLOOD DAMAGE PREVENTION

Chapter 320 - FLOOD DAMAGE PREVENTION

FOOTNOTE(S):

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**Editor's note**— Ord. No. 2007-09, § 26(Exh. B), adopted May 22, 2007, deleted Ch. 320 in its entirety and enacted a new Ch. 320 to read as set out herein. Former Ch. 320 pertained to similar subject matter and derived from Ord. No. 0-2006-32, §§ 1—3, adopted Nov. 28, 2006.

Sec. 320-1. - Introduction.

(a) It is hereby determined that:

- (1) The flood hazard areas of Rockdale County, Georgia are subject to periodic inundation which may result in loss of life and property, health and safety hazards, disruption of commerce and governmental services, extraordinary public expenditures for flood relief and protection, and impairment of the tax base, all of which adversely affect the public health, safety and general welfare.
- (2) Flood hazard areas can serve important stormwater management, water quality, streambank protection, stream corridor protection, wetland preservation and ecological purposes when permanently protected as undisturbed or minimally disturbed areas.
- (3) Effective floodplain management and flood hazard protection activities can:
  - a. Protect human life and health,
  - b. Minimize damage to private property,
  - c. Minimize damage to public facilities and infrastructure such as water and gas mains, electric, telephone and sewer lines, streets and bridges located in floodplains, and
  - d. Minimize expenditure of public money for costly flood control projects associated with flooding and generally undertaken at the expense of the general public.

- (b) Article IX, section II of the Constitution of the State of Georgia and section 36-1-20(a) of the Official Code of Georgia Annotated have delegated the authority to local governmental units to adopt regulations designed to promote the public health, safety, and general welfare of its citizenry. Therefore, Rockdale County, Georgia, does ordain this chapter and establishes this set of floodplain management and flood hazard reduction policies for the purpose of regulating the use of flood hazard areas consistent with federal, state and regional requirements. It is determined that the regulation of flood hazard areas and the prevention of flood damage are in the public interest and will minimize threats to public health and safety, as well as to private and public property.

(Ord. No. 2007-09, § 26 (Exh. B), 5-22-2007)

Sec. 320-2. - General provisions.

- (a) *Purpose and intent.* The purpose of this chapter is to protect, maintain and enhance the public health, safety, environment and general welfare and to minimize public and private losses due to flood conditions in flood hazard areas, as well as to protect the beneficial uses of floodplain areas for water quality protection, streambank and stream corridor protection, wetlands preservation and ecological and environmental protection by provisions designed to:
- (1) Require that uses vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of initial construction;

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- (2) Restrict or prohibit uses which are dangerous to health, safety and property due to flooding or erosion hazards, or which increase flood heights, velocities, or erosion;
  - (3) Control filling, grading, dredging and other development which may increase flood damage or erosion;
  - (4) Prevent or regulate the construction of flood barriers which will unnaturally divert flood waters or which may increase flood hazards to other lands;
  - (5) Limit the alteration of natural floodplains, stream channels, and natural protective barriers which are involved in the accommodation of flood waters; and,
  - (6) Protect the stormwater management, water quality, streambank protection, stream corridor protection, wetland preservation and ecological functions of natural floodplain areas.
- (b) *Applicability.* This chapter shall be applicable to all areas of special flood hazard within Rockdale County, Georgia.
- (c) *Designation of ordinance administrator.* The director of GIS is hereby designated the floodplain manager. The floodplain manager is hereby appointed to administer and implement the provisions of this chapter.
- (d) *Basis for area of special flood hazard.* Floodarea maps and studies for the purposes of this chapter, the following are adopted by reference:
- (1) The flood insurance study (FIS), dated January 19, 2001, with accompanying maps and other supporting data and any revision thereto are hereby adopted by reference.
  - (2) Other studies which may be relied upon for the establishment of the base flood elevation or delineation of the 100-year floodplain and flood-prone areas include:
    - a. Any flood or flood-related study conducted by the United States Army Corps of Engineers, the United States Geological Survey or any other local, state or federal agency applicable to Rockdale County, Georgia; or
    - b. Any base flood study authored by a registered professional engineer in the State of Georgia which has been prepared by FEMA approved methodology and approved by Rockdale County Department of Public Services and Engineering.
  - (3) Other studies which may be relied upon for the establishment of the future-conditions flood elevation or delineation of the future-conditions floodplain and flood-prone areas include:
    - a. Any flood or flood-related study conducted by the United States Army Corps of Engineers, the United States Geological Survey, or any other local, State or Federal agency applicable to Rockdale County, Georgia; or
    - b. Any future-conditions flood study authored by a registered professional engineer in the State of Georgia, which has been prepared by FEMA approved methodology and approved by Rockdale County Department of Public Services and Engineering.
  - (4) The repository for public inspection of the FIS, accompanying maps and other supporting data is located at Rockdale County Department of Public Services and Engineering.
- (e) *Compatibility with other regulations.* This chapter is not intended to modify or repeal any other ordinance, rule, regulation, statute, easement, covenant, deed restriction or other provision of law. The requirements of this chapter are in addition to the requirements of any other ordinance, rule, regulation or other provision of law, and where any provision of this chapter imposes restrictions different from those imposed by any other ordinance, rule, regulation or other provision of law, whichever provision is more restrictive or impose higher protective standards for human health or the environment shall control.
- (f) *Severability.* If the provisions of any section, subsection, paragraph, subdivision or clause of this chapter shall be adjudged invalid by a court of competent jurisdiction, such judgment shall not affect

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or invalidate the remainder of any section, subsection, paragraph, subdivision or clause of this chapter.

- (g) *Warning and disclaimer of liability.* The degree of flood protection required by this chapter is considered reasonable for regulatory purposes and is based on scientific and engineering considerations. Larger floods can and will occur; flood heights may be increased by manmade or natural causes. This chapter does not imply that land outside the areas of special flood hazard or uses permitted within such areas will be free from flooding or flood damages. This chapter shall not create liability on the part of Rockdale County, Georgia or by any officer or employee thereof for any flood damages that result from reliance on this chapter or any administrative decision lawfully made there under.

- (h) *Definitions.*

*Addition (to an existing building):* Any walled and roofed expansion to the perimeter of a building in which the addition is connected by a common load-bearing wall other than a fire wall. Any walled and roofed addition which is connected by a fire wall or is separated by an independent perimeter load-bearing wall shall be considered new construction.

*Appeal:* A request for a review of the floodplain manager's interpretation of any provision of this chapter or the department's enforcement of same consistent with section 320-6.

*Area of shallow flooding:* A designated AO or AH zone on a community's flood insurance rate map (FIRM) with base flood depths from one to three feet, and/or where a clearly defined channel does not exist, where the path of flooding is unpredictable and indeterminate, and where velocity flow may be evident.

*Area of special flood hazard:* The land subject to a one percent or greater chance of flooding in any given year. This includes all floodplain and flood-prone areas at or below the base flood elevation (including A, A1-30, A-99, AE, AO, AH, and AR on the FHBM or the FIRM), all floodplain and flood prone areas at or below the future-conditions flood elevation, and all other flood-prone areas as referenced in section 1.4. All streams with a drainage area of 100 acres or greater shall have the area of special flood hazard delineated.

*Base flood:* The flood having a one percent chance of being equaled or exceeded in any given year, also known as the 100-year flood.

*Base flood elevation:* The highest water surface elevation anticipated at any given point during the base flood.

*Basement:* See section 106-1.

*Building:* See section 106-1.

*Development:* See section 106-1.

*Elevated building:* A non-basement building built to have the lowest floor of the lowest enclosed area elevated above the ground level by means of fill, solid foundation perimeter walls, pilings, columns, piers, or shear walls adequately anchored so as not to impair the structural integrity of the building during a base flood event.

*Existing construction:* Any structure for which the "start of construction" commenced before March 6, 1975.

*Existing manufactured home park or subdivision:* See section 106-1.

*Expansion to an existing manufactured home park or subdivision:* See section 106-1.

*FEMA:* The Federal Emergency Management Agency.

*Flood or flooding:* A general and temporary condition of partial or complete inundation of normally dry land areas from:

- (a) The overflow of inland or tidal waters; or

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(b) The unusual and rapid accumulation or runoff of surface waters from any source.

*Flood hazard boundary map or FHBM:* An official map of a community, issued by the federal insurance administration, where the boundaries of areas of special flood hazard have been defined as zone A.

*Flood insurance rate map or FIRM:* An official map of a community, issued by the federal insurance administration, delineating the areas of special flood hazard and/or risk premium zones applicable to the community.

*Flood insurance study or FIS:* The official report by the federal insurance administration evaluating flood hazards and containing flood profiles and water surface elevations of the base flood.

*Floodplain:* See section 106-1.

*Floodproofing:* Any combination of structural and nonstructural additions, changes, or adjustments to structures which reduce or eliminate flood damage to real estate or improved real property, water and sanitary facilities, structures and their contents.

*Floodway or regulatory floodway:* The channel of a stream or other watercourse and the adjacent areas of the floodplain which is necessary to contain and discharge the base flood flow without cumulatively increasing the base flood elevation more than one foot.

*Functionally dependent use or facility:* A use or facility which cannot perform its intended purpose unless it is located or carried out in close proximity to water.

*Future conditions flood:* The flood having a one percent chance of being equaled or exceeded in any given year based on future-conditions hydrology. Also known as the 100-year future-conditions flood.

*Future-conditions flood elevation:* The flood standard equal to or higher than the base flood elevation. The future-conditions flood elevation is defined as the highest water surface anticipated at any given point during the future-conditions flood.

*Future-conditions floodplain:* Any land area susceptible to flooding by the future-conditions flood.

*Future-conditions hydrology:* The flood discharges associated with projected land-use conditions based on a community's zoning map, comprehensive land-use plans, and/or watershed study projections, and without consideration of projected future construction of flood detention structures or projected future hydraulic modifications within a stream or other waterway, such as bridge and culvert construction, fill, and excavation.

*Highest adjacent grade:* The highest natural elevation of the ground surface, prior to construction, adjacent to the proposed foundation of a building.

*Historic structure:* Any structure that is:

- (a) Listed individually in the National Register of Historic Places (a listing maintained by the U.S. Department of Interior) or preliminarily determined by the Secretary of the Interior as meeting the requirements for individual listing on the National Register;
- (b) Certified or preliminarily determined by the secretary of the interior as contributing to the historical significance of a registered historic district or a district preliminarily determined by the Secretary to qualify as a registered historic district;
- (c) Individually listed on Georgia's inventory of historic places and determined as eligible by the State Historic Preservation Officer; or
- (d) Individually listed on Rockdale County's inventory of historic places or identified as an Historic Resource in the Rockdale County Comprehensive Plan.

*Lowest floor:* See section 106-1.

*Manufactured home:* A structure meeting any definition of manufactured home set forth in section 106-1. The term includes any structure commonly referred to as a "mobile home" regardless of the date of

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manufacture. The term also includes parked trailers, travel trailers and similar transportable structures placed on a site for 180 consecutive days or longer and intended to be improved property.

*Mean sea level:* See section 106-1.

*National geodetic vertical datum (NGVD):* See section 106-1.

*New construction:* Any structure (see definition) for which the "start of construction" commenced after March 6, 1975 and includes any subsequent improvements to the structure.

*New manufactured home park or subdivision:* See section 106-1.

*North American Vertical Datum (NAVD) of 1988:* See section 106-1.

*Owner:* See section 106-1.

*Permit:* See section 106-1.

*Recreational vehicle:* See section 106-1.

*Repetitive loss:* Flood-related damages sustained by a structure on two separate occasions during a ten-year period for which the cost of repairs at the time of each such flood event, on the average, equals, or exceeds 25 percent of the market value of the structure before the damage occurred.

*Site:* The parcel of land being developed, or the portion thereof on which the development project is located.

*Start of construction:* The date the permit was issued, provided the actual start of construction, repair, reconstruction, or improvement was within 180 days of the permit date. The actual start means the first placement of permanent construction of the structure such as the pouring of slabs or footings, installation of piles, construction of columns, or any work beyond the stage of excavation, and includes the placement of a manufactured home on a foundation. Permanent construction does not include initial land preparation, such as clearing, grading and filling; nor does it include the installation of streets and/or walkways; nor does it include excavation for a basement, footings, piers or foundations or the erection of temporary forms; nor does it include the installation on the property of buildings appurtenant to the permitted structure, such as garages or sheds not occupied as dwelling units or part of the main structure. (Note: accessory structures are not exempt from any ordinance requirements). For a substantial improvement, the actual start of construction means the first alteration of any wall, ceiling, floor, or other structural part of a building, whether or not that alteration affects the external dimensions of the building.

*Structure:* A walled and roofed building that is principally above ground, a manufactured home, a gas or liquid storage tank.

*Subdivision:* See section 106-1.

*Substantial damage:* See section 106-1.

*Substantial improvement:* Any combination of repairs, reconstruction, alteration, or improvements to a building, taking place during a ten-year period, in which the cumulative cost equals or exceeds 50 percent of the market value of the structure prior to the improvement. The market value of the building means (1) the appraised value of the structure prior to the start of the initial repair or improvement, or (2) in the case of damage, the value of the structure prior to the damage occurring. This term includes structures, which have incurred "repetitive loss" or "substantial damage" regardless of the actual amount of repair work performed. For the purposes of this definition, "substantial improvement" is considered to occur when the first alteration of any wall, ceiling, floor, or other structural part of the building commences, whether or not that alteration affects the external dimensions of the building. The term does not, however, include those improvements of a building required to comply with existing health, sanitary, or safety code specifications which are solely necessary to assure safe living conditions, which have been pre-identified by the code enforcement official, and not solely triggered by an improvement or repair project.

*Substantially improved existing manufactured home park or subdivision:* Where the repair, reconstruction, rehabilitation or improvement of the streets, utilities and pads equals or exceeds 50

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percent of the value of the streets, utilities and pads before the repair, reconstruction or improvement commenced.

*Variance:* A grant of relief from the requirements of this chapter which permits construction in a manner otherwise prohibited by this chapter, consistent with the standards set forth and referenced herein.

*Violation:* The failure of a structure or other development to be fully compliant with the community's floodplain management regulations. A structure or other development without the elevation certificate, other certificates, or other evidence of compliance required in this chapter is presumed to be in violation until such time as that documentation is provided.

(Ord. No. 2007-09, § 26 (Exh. B), 5-22-2007)

Sec. 320-3. - Permit procedures and requirements.

(a) *Permit application requirements.*

- (1) No owner or developer shall perform any development activities on a site where an area of special flood hazard is located without first meeting the requirements of this chapter prior to commencing the proposed activity.
- (2) Unless specifically excluded by this chapter, any landowner or developer desiring a permit for a development activity shall submit to the Rockdale County Department of Public Services and Engineering a permit application on a form provided by the Rockdale County Department of Public Services and Engineering for that purpose.
- (3) No permit will be approved for any development activities that do not meet the requirements, restrictions and criteria of this chapter.

(b) *Floodplain management plan requirements.* An application for a development project with any area of special flood hazard located on the site will be required to include a floodplain management/flood damage prevention plan. This plan shall include the following items:

- (1) Site plan drawn to scale, which includes but is not limited to:
  - a. Existing and proposed elevations of the area in question and the nature, location and dimensions of existing and/or proposed structures, and storage of materials or equipment;
  - b. For all proposed structures, spot ground elevations at building corners and 20-foot or smaller intervals along the foundation footprint, or two foot contour elevations throughout the building site;
  - c. Proposed locations of water supply, sanitary sewer, and utilities;
  - d. Proposed locations of drainage and stormwater management facilities;
  - e. Proposed grading plan;
  - f. Base flood elevations and future-conditions flood elevations;
  - g. Boundaries of the base flood floodplain and future-conditions floodplain;
  - h. If applicable, the location of the floodway; and
  - i. Certification of the above by a registered professional engineer or surveyor.
- (2) Building and foundation design detail, including but not limited to:
  - a. Elevation in relation to mean sea level (or highest adjacent grade) of the lowest floor, including basement, of all proposed structures;
  - b. Elevation in relation to mean sea level to which any non-residential structure will be floodproofed;

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- c. Certification that any proposed nonresidential floodproofed structure meets the criteria in subsection [320-5(b)(2)];
  - d. For enclosures below the base flood elevation, location and total net area of foundation openings as required in subsection [320-5(a)(5)].
  - e. Design plans certified by a registered professional engineer or architect for all proposed structure(s).
- (3) Description of the extent to which any watercourse will be altered or relocated as a result of the proposed development;
  - (4) Hard copies and digital files of computer models, if any, copies of work maps, comparison of pre-and post development conditions base flood elevations, future-conditions flood elevations, flood protection elevations, special flood hazard areas and regulatory floodway widths, flood profiles and all other computations and other information similar to that presented in the FIS;
  - (5) Copies of all applicable state and federal permits necessary for proposed development;
  - (6) All appropriate certifications required under this chapter; and
  - (7) The approved floodplain management/flood damage prevention plan shall contain certification by the applicant that all development activities will be done according to the plan or previously approved revisions. Any and all development permits and/or use and occupancy certificates or permits may be revoked at any time if the construction and development activities are not in strict accordance with approved plans.
- (c) *Construction stage submittal requirements.* For all new construction and substantial improvements on sites with a floodplain management/flood damage prevention plan, the permit holder shall provide to the floodplain manager a certified as-built elevation certificate or flood-proofing certificate for nonresidential construction including the lowest floor elevation or flood-proofing level immediately after the lowest floor or flood-proofing is completed. A final elevation certificate shall be provided after completion of construction including final grading of the site. Any lowest floor certification made relative to mean sea level shall be prepared by or under the direct supervision of a registered land surveyor or professional engineer and certified by same. When flood-proofing is utilized for non-residential structures, said certification shall be prepared by or under the direct supervision of a professional engineer or architect and certified by same.

Any work undertaken prior to approval of these certifications shall be at the permit holder's risk. The floodplain manager shall review the above referenced certification data submitted. Deficiencies detected by such review shall be corrected by the permit holder immediately and prior to further work being allowed to proceed. Failure to submit certification or failure to make the corrections required hereby shall be cause to issue a stop work order by the department of public services and engineering for the project.

- (d) *Duties and responsibilities of the floodplain manager.* Duties of the floodplain manager shall include, but shall not be limited to:
- (1) Review all development applications and permits to assure that the requirements of this chapter have been satisfied and to determine whether proposed building sites will be reasonably safe from flooding;
  - (2) Require that copies of all necessary permits from governmental agencies from which approval is required by federal or state law, including but not limited to Section 404 of the Federal Water Pollution Control Act Amendments of 1972, 33 U.S.C. 1334, be provided and maintained on file;
  - (3) When base flood elevation data or floodway data have not been provided, then the floodplain manager shall require the applicant to obtain, review and reasonably utilize any base flood elevation and floodway data available from a federal, state or other sources in order to meet the provisions of sections 320-4 and 320-5
  - (4) Review and record the actual elevation in relation to mean sea level (or highest adjacent grade) of the lowest floor, including basement, of all new or substantially improved structures;

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- (5) Review and record the actual elevation, in relation to mean sea level to which any substantially improved structures have been flood-proofed;
- (6) When flood-proofing is utilized for a nonresidential structure, the floodplain manager shall obtain from the applicant certification of design criteria from a registered professional engineer or architect;
- (7) Notify affected adjacent communities and the Georgia Department of Natural Resources prior to any alteration or relocation of a watercourse and submit evidence of such notification to the Federal Emergency Management Agency (FEMA);
- (8) Where interpretation is needed as to the exact location of boundaries of the areas of special flood hazard (e.g., where there appears to be a conflict between a mapped boundary and actual field conditions) the floodplain manager shall make the necessary interpretation. Any person contesting the location of the boundary shall be given an opportunity to appeal as provided in section 320-6. Where floodplain elevations have been defined, the floodplain shall be determined based on flood elevations rather than the area graphically delineated on the floodplain maps; and,
- (9) All records pertaining to the provisions of this chapter shall be maintained in the office of the floodplain manager and shall be open for public inspection.

(Ord. No. 2007-09, § 26 (Exh. B), 5-22-2007)

Sec. 320-4. - Standards for development.

(a) *Definition of floodplain boundaries.*

- (1) Studied "A" zones, as identified in the FIS, shall be used to establish base flood elevations whenever available.
- (2) For all streams with a drainage area of 100 acres or greater, the future-conditions flood elevations shall be provided by the Rockdale County Department of Public Services and Engineering. If future-conditions elevation data is not available from the Rockdale County Department of Public Services and Engineering, then it shall be determined by the developer's or contractor's registered professional engineer using a method approved by FEMA and the Rockdale County Department of Public Services and Engineering. Methodologies that are acceptable are HEC-RAS compatible and must be provided in HEC-RAS compatible format via electronic means for inclusion into Rockdale County's Geographical Information System. As a note, cross sections must be no greater than 100 feet along the thalweg. The entire model must be submitted in Georgia State Plane (W), feet, NAD93, NAVD 88 in HEC-RAS 3.1.3 compatible format.

(b) *Definition of floodway boundaries.* The width of a floodway shall be determined from the FIS or FEMA approved flood study. For all streams with a drainage area of 100 acres or greater, the regulatory floodway shall be provided by the Rockdale County Department of Public Services and Engineering. If floodway data is not available from the Rockdale County Department of Public Services and Engineering, then it shall be determined by the applicant's registered professional engineer using a method approved by FEMA and the Rockdale County Department of Public Services and Engineering.

(c) *General standards.*

- (1) No development shall be allowed within the future-conditions floodplain that could result in any of the following:
  - a. Raising the base flood elevation or future-conditions flood elevation equal to or more than 0.01 foot;
  - b. Reducing the base flood or future-conditions flood storage capacity;



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- c. Changing the flow characteristics as to the depth and velocity of the waters of the base flood or future-conditions flood as they pass both the upstream and the downstream boundaries of the development area; or
  - d. Creating hazardous or erosion-producing velocities, or resulting in excessive sedimentation.
- (2) Any development within the future-conditions floodplain allowed under above shall also meet the following conditions:
- a. Compensation for storage capacity shall occur between the average ground water table elevation and the base flood elevation for the base flood, and between the average ground water table elevation and the future-condition flood elevation for the future-conditions flood, and lie either within the boundaries of ownership of the property being developed and shall be within the immediate vicinity of the location of the encroachment. Acceptable means of providing required compensation include lowering of natural ground elevations within the floodplain, or lowering of adjoining land areas to create additional floodplain storage. In no case shall any required compensation be provided via bottom storage or by excavating below the elevation of the top of the natural (pre-development) stream channel unless such excavation results from the widening or relocation of the stream channel;
  - b. Cut areas shall be stabilized and graded to a slope of no less than 2.0 percent;
  - c. Effective transitions shall be provided such that flow velocities occurring on both upstream and downstream properties are not increased or decreased;
  - d. Verification of no-rise conditions (0.01 foot or less), flood storage volumes, and flow characteristics shall be provided via a step-backwater analysis meeting the requirements of subsection (d);
  - e. Public utilities and facilities, such as water, sanitary sewer, gas, and electrical systems, shall be located and constructed to minimize or eliminate infiltration or contamination from flood waters; and
  - f. Any significant physical changes to the base flood floodplain shall be submitted as a conditional letter of map revision (CLOMR) or conditional letter of map amendment (CLOMA), whichever is applicable. The CLOMR submittal shall be subject to approval by the Rockdale County Department of Public Services and Engineering using the community consent forms before forwarding the submittal package to FEMA for final approval. The responsibility for forwarding the CLOMR to FEMA and for obtaining the CLOMR approval shall be the responsibility of the applicant. Within six months of the completion of construction, the applicant shall submit as-built surveys for a final letter of map revision (LOMR).
- (d) *Engineering study requirements for floodplain encroachments.* An engineering study is required, as appropriate to the proposed development activities on the site, whenever a development proposes to disturb any land within the future-conditions floodplain, except for a residential single-lot development on streams without established base flood elevations and/or floodways for which the provisions of section 320-5(d) apply. This study shall be prepared by a currently registered professional engineer in the State of Georgia and made a part of the application for a permit. This information shall be submitted to and approved by the Rockdale County Department of Public Services and Engineering prior to the approval of any permit which would authorize the disturbance of land located within the future-conditions floodplain. Such study shall include each of the following:
- (1) Description of the extent to which any watercourse or floodplain will be altered or relocated as a result of the proposed development.
  - (2) Step-backwater analysis, using a FEMA-approved methodology approved by the Rockdale County Department of Public Services and Engineering. Cross-sections (which may be supplemented by the applicant) and flow information will be obtained whenever available.

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Computations will be shown duplicating FIS results and will then be rerun with the proposed modifications to determine the new base flood profiles, and future-conditions flood profiles. Methodologies that are acceptable are HEC-RAS compatible and must be provided in HEC-RAS compatible format via electronic means for inclusion into Rockdale County's Geographical Information System. As a note, cross sections must be no greater than 100 feet along the thalweg. The entire model must be submitted in Georgia State Plane (W), feet, NAD93, NAVD 88.in HEC-RAS 3.1.3 compatible format.

- (3) Floodplain storage calculations based on cross-sections (at least one every 100 feet) showing existing and proposed floodplain conditions to show that base flood floodplain and future-conditions floodplain storage capacity would not be diminished by the development. Methodologies that are acceptable are HEC-RAS compatible and must be provided in HEC-RAS compatible format via electronic means for inclusion into Rockdale County's Geographical Information System. As a note, cross sections must be no greater than 100 feet along the thalweg. The entire model must be submitted in Georgia State Plane (W), feet, NAD93, NAVD 88.in HEC-RAS 3.1.3 compatible format.
- (4) The study shall include a preliminary plat, grading plan, or site plan, as appropriate, which shall clearly define all future-conditions floodplain encroachments.
- (e) *Floodway encroachments.* Located within areas of special flood hazard are areas designated as floodway. A floodway may be an extremely hazardous area due to velocity flood waters, debris or erosion potential. In addition, floodways must remain free of encroachment in order to allow for the discharge of the base flood without increased flood heights. Therefore the following provisions shall apply:
  - (1) Encroachments are prohibited, including earthen fill, new construction, substantial improvements or other development within the regulatory floodway, except for activities specifically allowed in subsection (2) below;
  - (2) Encroachments for bridges, culverts, roadways and utilities within the regulatory floodway may be permitted provided it is demonstrated through hydrologic and hydraulic analyses performed in accordance with standard engineering practice that the encroachment shall not result in any increase to the pre-project base flood elevations, floodway elevations, or floodway widths during the base flood discharge. A registered professional engineer must provide supporting technical data and certification thereof in HEC-RAS 3.1.3 compatible format via electronic means for inclusion into Rockdale County's Geographical Information System. As a note, cross sections must be no greater than 100 feet along the thalweg. The entire model must be submitted in Georgia State Plane (W), feet, NAD93, NAVD 88.in HEC-RAS 3.1.3 compatible format; and,
  - (3) If the applicant proposes to revise the floodway boundaries, no permit authorizing the encroachment into or an alteration of the floodway shall be issued by the Rockdale County Department of Public Services and Engineering until an affirmative Conditional Letter of Map Revision (CLOMR) is issued by FEMA and no-rise certification is approved by the Rockdale County Department of Public Services and Engineering.
- (f) *Maintenance requirements.* The property owner shall be responsible for continuing maintenance as may be needed within an altered or relocated portion of a floodplain on his property so that the flood-carrying or flood storage capacity is not diminished. The Rockdale County Department of Public Services and Engineering may direct the property owner (at no cost to Rockdale County, Georgia) to restore the flood-carrying or flood storage capacity of the floodplain if the owner has not performed maintenance as required by the approved floodplain management plan on file with the Rockdale County Department of Public Services and Engineering.

(Ord. No. 2007-07, § 1, 3-27-2007)

Sec. 320-5. - Provisions for flood damage reduction.

- (a) *General standards.* In all areas of special flood hazard the following provisions apply:

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- (1) New construction of principal buildings (residential or non-residential), including manufactured homes, shall not be allowed within the limits of the future-conditions floodplain, unless all requirements of subsections 320-4(c), 320-4(d), and 320-4(e) have been met;
- (2) New construction or substantial improvements of existing structures shall be anchored to prevent flotation, collapse or lateral movement of the structure;
- (3) New construction or substantial improvements of existing structures shall be constructed with materials and utility equipment resistant to flood damage;
- (4) New construction or substantial improvements of existing structures shall be constructed by methods and practices that minimize flood damage;
- (5) *Elevated buildings.* All new construction and substantial improvements of existing structures that include any fully enclosed area located below the lowest floor formed by foundation and other exterior walls shall be designed so as to be an unfinished and flood resistant enclosure. The enclosure shall be designed to equalize hydrostatic flood forces on exterior walls by allowing for the automatic entry and exit of floodwater.
  - a. Designs for complying with this requirement must either be certified by a professional engineer or architect or meet the following minimum criteria:
    - i. Provide a minimum of two openings having a total net area of not less than one square inch for every square foot of enclosed area subject to flooding;
    - ii. The bottom of all openings shall be no higher than one foot above grade; and,
    - iii. Openings may be equipped with screens, louvers, valves or other coverings or devices provided they permit the automatic flow of floodwater in both directions.
  - b. So as not to violate the "lowest floor" criteria of this chapter, the unfinished and flood resistant enclosure shall solely be used for parking of vehicles, limited storage of maintenance equipment used in connection with the premises, or entry to the elevated area; and,
  - c. The interior portion of such enclosed area shall not be partitioned or finished into separate rooms.
- (6) All heating and air conditioning equipment and components (including ductwork), all electrical, ventilation, plumbing, and other service facilities shall be designed and/or located three feet above the base flood elevation or one foot above the future-conditions flood elevation, whichever is higher, so as to prevent water from entering or accumulating within the components during conditions of flooding;
- (7) Manufactured homes shall be anchored to prevent flotation, collapse, or lateral movement. Methods of anchoring may include, but are not limited to, use of over-the-top or frame ties to ground anchors. This standard shall be in addition to and consistent with applicable state requirements for resisting wind forces;
- (8) New and replacement water supply systems shall be designed to minimize or eliminate infiltration of flood waters into the system;
- (9) New and replacement sanitary sewage systems shall be designed to minimize or eliminate infiltration of flood waters into the systems and discharges from the systems into flood waters;
- (10) On-site waste disposal systems shall be located and constructed to avoid impairment to them, or contamination from them, during flooding; and,
- (11) Any alteration, repair, reconstruction or improvement to a structure which is not compliant with the provisions of this chapter, shall be undertaken only if the non- conformity is not furthered, extended or replaced.

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- (12) If the proposed development is located in multiple flood zones or multiple base flood elevation cross the proposed site, the higher or more restrictive base flood elevation or future condition elevation and development standards shall take precedence.
- (b) *Building standards for structures and buildings within the future-conditions floodplain.* The following provisions, in addition to those in subsection (a), shall apply:
- (1) *Residential buildings.*
- a. *New construction.* New construction of principal buildings, including manufactured homes shall not be allowed within the limits of the future-conditions floodplain unless all requirements of subsections 320-4(c), 320-4(d) and 320-4(e) have been met. If all of the requirements of said Sections have been met, all new construction shall have the lowest floor, including basement, elevated no lower than three feet above the base flood elevation or one foot above the future-conditions flood elevation, whichever is higher. Should solid foundation perimeter walls be used to elevate the structure, openings sufficient to equalize the hydrologic flood forces on exterior walls and to facilitate the unimpeded movements of floodwaters shall be provided in accordance with standards of subsection (a)(5).
- b. *Substantial improvements.* Substantial improvement of any principal structure or manufactured home shall have the lowest floor, including basement, elevated no lower than three feet above the base flood elevation or one foot above the future-conditions flood elevation, whichever is higher. Should solid foundation perimeter walls be used to elevate a structure, openings sufficient to equalize the hydrologic flood forces on exterior walls and to facilitate the unimpeded movements of flood waters shall be provided in accordance with standards of subsection (a)(5).
- (2) *Nonresidential buildings.*
- a. *New construction.* New construction of principal buildings, including manufactured homes shall not be allowed within the limits of the future-conditions floodplain unless all requirements of subsections 320-4(c), 320-4(d) and 320-4(e) have been met. New construction that has met all of the requirements of said sections may be flood-proofed in lieu of elevation. The structure, together with attendant utility and sanitary facilities, must be designed to be watertight to one foot above the base flood elevation, or at least as high as the future-conditions flood elevation, whichever is higher, with walls substantially impermeable to the passage of water and structural components having the capability of resisting hydrostatic and hydrodynamic loads and the effect of buoyancy. A registered professional engineer or architect shall certify that the design and methods of construction are in accordance with accepted standards of practice for meeting the provisions above, and shall provide such certification to the floodplain manager.
- b. *Substantial improvements.* Substantial improvement of any principal non-residential structure located in A1-30, AE, or AH zones, may be authorized by the floodplain manager to be flood-proofed in lieu of elevation. The structure, together with attendant utility and sanitary facilities, must be designed to be water tight to one foot above the base flood elevation, or at least as high as the future-conditions flood elevation, whichever is higher, with walls substantially impermeable to the passage of water, and structural components having the capability of resisting hydrostatic and hydrodynamic loads and the effect of buoyancy. A registered professional engineer or architect shall certify that the design and methods of construction are in accordance with accepted standards of practice for meeting the provisions above, and shall provide such certification to the floodplain manager.
- (3) *Accessory structures and facilities.* Accessory structures and facilities (i.e., barns, sheds, gazebos, detached garages, parking lots, recreational facilities and other similar non-habitable structures and facilities) which are permitted to be located within the limits of the floodplain shall be constructed of flood-resistant materials and designed to pass all floodwater in accordance with subsection (a)(5) and be anchored to prevent flotation, collapse or lateral movement of the structure.

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- (4) *Standards for recreational vehicles.* All recreational vehicles placed on sites must either:
- a. Be on the site for fewer than 180 consecutive days and be fully licensed and ready for highway use, (a recreational vehicle is ready for highway use if it is licensed, on its wheels or jacking system, attached to the site only by quick disconnect type utilities and security devices, and has no permanently attached structures or additions); or
  - b. The recreational vehicle must meet all the requirements for residential buildings—substantial improvements (subsection (b)(1)b.), including the anchoring and elevation requirements.
- (5) *Standards for manufactured homes.*
- a. New manufactured homes shall not be allowed to be placed within the limits of the future-conditions floodplain unless all requirements of subsections 320-4(c), 320-4(d) and 320-4(e) have been met.
  - b. Manufactured homes placed and/or substantially improved in an existing manufactured home park or subdivision shall be elevated so that either:
    - i. The lowest floor of the manufactured home is elevated no lower than three feet above the level of the base flood elevation, or one foot above the future-conditions flood elevation, whichever is higher; or
    - ii. The manufactured home chassis is elevated and supported by reinforced piers (or other foundation elements of at least an equivalent strength) of no less than 36 inches in height above grade.
  - c. All manufactured homes must be securely anchored to an adequately anchored foundation system to resist flotation, collapse and lateral movement in accordance with standards of subsection (a)(7).
- (c) *Building standards for structures and buildings authorized adjacent to the future-conditions floodplain.*
- (1) *Residential buildings.* For new construction or substantial improvement of any principal residential building or manufactured home, the elevation of the lowest floor, including basement and access to the building, shall be at least three feet above the base flood elevation or one foot above the future-conditions flood elevation, whichever is higher.
  - (2) *Nonresidential buildings.* For new construction or substantial improvement of any principal non-residential building, the elevation of the lowest floor, including basement and access to the building, shall be at least one foot above the level of the base flood elevation or at least as high as the future-conditions flood elevation, whichever is higher.
- (d) *Building standards for residential single-lot developments on streams without established base flood elevations and/or floodway (A-zones).*
- (1) For a residential single-lot development not part of a subdivision that has areas of special flood hazard, where streams exist but no base flood data have been provided (A-zones), the floodplain manager shall review and reasonably utilize any available scientific or historic flood elevation data, base flood elevation and floodway data, or future-conditions flood elevation data available from a federal, state, local or other source, in order to administer the provisions and standards of this chapter.
  - (2) If data are not available from any of these sources, the following provisions shall apply:
    - a. No encroachments, including structures or fill material, shall be located within an area equal to twice the width of the stream or 50 feet from the top of the bank of the stream, whichever is greater.
    - b. In special flood hazard areas without base flood or future-conditions flood elevation data, new construction and substantial improvements of existing structures shall have the lowest

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floor of the lowest enclosed area (including basement) elevated no less than three feet above the highest adjacent grade at the building site. Openings sufficient to facilitate the unimpeded movements of floodwaters shall be provided in accordance with subsection (a)(5).

- (e) *Building standards for areas of shallow flooding (AO-zones).* Areas of special flood hazard may include designated "AO" shallow flooding areas. These areas have base flood depths of one to three feet above ground, with no clearly defined channel. In these areas the following provisions apply:
- (1) New and substantial improvements of residential and non-residential structures shall have the lowest floor, including basement, elevated to no lower than one foot above the flood depth number in feet specified on the flood insurance rate map (FIRM), above the highest adjacent grade. If no flood depth number is specified, the lowest floor, including basement, shall be elevated at least three feet above the highest adjacent grade. Openings sufficient to facilitate the unimpeded movements of flood waters shall be provided in accordance with standards of subsection (a)(5).
  - (2) New and substantial improvements of a non-residential structure may be flood-proofed in lieu of elevation. The structure, together with attendant utility and sanitary facilities, must be designed to be water tight to the specified FIRM flood level plus one foot above the highest adjacent grade, with walls substantially impermeable to the passage of water, and structural components having the capability of resisting hydrostatic and hydrodynamic loads and the effect of buoyancy. A registered professional engineer or architect shall certify that the design and methods of construction are in accordance with accepted standards of practice; and,
  - (3) Drainage paths shall be provided to guide floodwater around and away from any proposed structure.
- (f) *Standards for subdivisions.*
- (1) All subdivision proposals shall identify the special flood hazard area and provide base flood elevation data and future-conditions flood elevation data;
  - (2) All residential lots in a subdivision proposal shall have sufficient buildable area outside of the future-conditions floodplain such that encroachments into the future-conditions floodplain for residential structures will not be required;
  - (3) All subdivision plans will provide the elevations of proposed structures in accordance with subsection 320-3(b).
  - (4) All subdivision proposals shall be consistent with the need to minimize flood damage;
  - (5) All subdivision proposals shall have public utilities and facilities such as water, sanitary sewer, gas, and electrical systems located and constructed to minimize or eliminate infiltration of flood waters, and discharges from the systems into flood waters; and,
  - (6) All subdivision proposals shall include adequate drainage and stormwater management facilities per the requirements of Rockdale County, Georgia to reduce potential exposure to flood hazards.

(Ord. No. 2007-09, § 26 (Exh. B), 5-22-2007)

Sec. 320-6. - Variance and appeal procedures.

Variances to the regulations set forth in this chapter shall be decided in accordance with the procedures and standards set forth in section 238-10. Appeals by aggrieved parties (as defined in subsection 238-8(a)(2)) from any requirement, decision or determination made by the floodplain manager or the department in the administration or enforcement of the regulations set forth in this chapter shall be as authorized in subsection 238-10(a)(2) and shall be decided in accordance with the procedures and standards set forth in section 238-8.

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(Ord. No. 2007-09, § 26 (Exh. B), 5-22-2007)

Sec. 320-7. - Violations, enforcement and penalties.

Any action or inaction which violates the provisions of this chapter or the requirements of an approved stormwater management plan or permit, may be subject to the enforcement actions outlined in this section. Any such action or inaction which is continuous with respect to time is deemed to be a public nuisance and may be abated by injunctive or other equitable relief. The imposition of any of the penalties described below shall not prevent such equitable relief.

- (a) *Notice of violation.* If the Rockdale County Department of Public Services and Engineering determines that an applicant or other responsible person has failed to comply with the terms and conditions of a permit, an approved stormwater management plan or the provisions of this chapter, it shall issue a written notice of violation to such applicant or other responsible person. Where a person is engaged in activity covered by this chapter without having first secured a permit therefor, the notice of violation shall be served on the owner or the responsible person in charge of the activity being conducted on the site. The notice of violation shall contain:
- (1) The name and address of the owner or the applicant or the responsible person;
  - (2) The address or other description of the site upon which the violation is occurring;
  - (3) A statement specifying the nature of the violation;
  - (4) A description of the remedial measures necessary to bring the action or inaction into compliance with the permit, the stormwater management plan or this chapter and the date for the completion of such remedial action;
  - (5) A statement of the penalty or penalties that may be assessed against the person to whom the notice of violation is directed; and,
  - (6) A statement that the determination of violation may be appealed to the Rockdale County Board of Adjustment (see section 320-6) by filing a written notice of appeal within 15 days after the notice of violation, except that in the event the violation constitutes an immediate danger to public health or public safety, appeals shall be filed within 24 hours.
- (b) *Penalties.* In the event the remedial measures described in the notice of violation have not been completed by the date set forth for such completion in the notice of violation, any one or more of the following actions or penalties may be taken or assessed against the person to whom the notice of violation was directed. Before taking any of the following actions or imposing any of the following penalties, the Rockdale County Department of Public Services and Engineering shall first notify the applicant or other responsible person in writing of its intended action, and shall provide a reasonable opportunity, of not less than ten days (except, that in the event the violation constitutes an immediate danger to public health or public safety, 24 hours' notice shall be sufficient) to cure such violation. In the event the applicant or other responsible person fails to cure such violation after such notice and cure period, the Rockdale County Department of Public Services and Engineering may take any one or more of the following actions or impose any one or more of the following penalties.
- (1) *Stop work order.* The Rockdale County Department of Public Services and Engineering may issue a stop work order which shall be served on the applicant or other responsible person. The stop work order shall remain in effect until the applicant or other responsible person has taken the remedial measures set forth in the notice of violation or has otherwise cured the violation or violations described therein, provided the stop work order may be withdrawn or modified to enable the applicant or other responsible person to take the necessary remedial measures to cure such violation or violations.
  - (2) *Withhold certificate of occupancy.* The Rockdale County Department of Public Services and Engineering may refuse to issue a certificate of occupancy for the building or other improvements constructed or being constructed on the site until the applicant or other

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responsible person has taken the remedial measures set forth in the notice of violation or has otherwise cured the violations described therein.

- (3) *Suspension, revocation or modification of permit.* The Rockdale County Department of Public Services and Engineering may suspend, revoke or modify the permit authorizing the development project. A suspended, revoked or modified permit may be reinstated after the applicant or other responsible person has taken the remedial measures set forth in the notice of violation or has otherwise cured the violations described therein, provided such permit may be reinstated (upon such conditions as the Rockdale County Department of Public Services and Engineering may deem necessary) to enable the applicant or other responsible person to take the necessary remedial measures to cure such violations.
- (4) *Civil penalties.* In the event the applicant or other responsible person fails to take the remedial measures set forth in the notice of violation or otherwise fails to cure the violations described therein within ten days, or such greater period as the Rockdale County Department of Public Services and Engineering shall deem appropriate (except, that in the event the violation constitutes an immediate danger to public health or public safety, 24 hours' notice shall be sufficient) after the Rockdale County Public Services and Engineering has taken one or more of the actions described above, the Rockdale County Department of Public Services and Engineering may impose a penalty not to exceed \$1,000.00 (depending on the severity of the violation) for each day the violation remains unremedied after receipt of the notice of violation.
- (5) *Criminal penalties.* For intentional and flagrant violations of this chapter, the Rockdale County Department of Public Services and Engineering may issue a citation to the applicant or other responsible person, requiring such person to appear in Rockdale County Magistrate Court to answer charges for such violation. Upon conviction, such person shall be punished by a fine not to exceed \$1,000.00 or imprisonment for 60 days or both. Each act of violation and each day upon which any violation shall occur shall constitute a separate offense.

(Ord. No. 2007-09, § 26 (Exh. B), 5-22-2007)